

## REMARKS

### I. Summary of the Office Action

In the Advisory Action mailed December 15, 2009, the Office maintained the rejection of claims 1-11 and 14-16 under 35 U.S.C. § 103(a) as being unpatentable over Johnson (US 4,536,180) in view of Williams (US 7,025,718).

The Examiner treated Applicant's submission of November 30, 2009 as a response to the Office Action of September 16, 2009, when in fact it was merely a summary of what Applicant wished to discuss in a proposed interview. That interview has not yet occurred, and therefore Applicant's request the consideration of this full response.

### II. Status of the Claims

Claims 11 and 16 have been amended to correct a typographical error by replacing a comma with a semicolon.

Claims 1-11 and 14-16 are presently pending. Claims 1, 11, and 16 are independent and the rest of the claims are dependent.

### III. Response to Rejection Under 35 U.S.C. § 103(a)

#### A. Claims 1-10

Of these claims, claim 1 is independent. Applicant submits that the invention recited by claim 1 patentably distinguishes over Johnson in view of Williams for at least the reason that this combination does not disclose or render obvious the invention recited by claim 1. At a minimum, for instance, the combination does not disclose or render obvious the claim 1 feature of *a first pressure sensor for*

*measuring the pressure in the auxiliary lumen and a controller to increase the pressure difference between a pressure in the drainage lumen and a pressure in the atmosphere when the auxiliary lumen is open only when the pressure measured in the auxiliary lumen corresponds at least to atmospheric pressure.*

In order to clear hard or fibrous material from the passage of a lumen, Johnson has a surgeon manually open a valve apparatus with his thumb. *Johnson*, col. 4, lines 19-20, 38-53. Air then bleeds into a venting passage 18 and around the end of divider member 14 at a point beyond the opening in the suction passage 16. *Id.* The application of air at the end portion “allows the vacuum applied at the other end to pull the plug material on through without having to continue to pull on the bodily material adjacent to the side opening 15.” *Id.* But Johnson’s teaching does not amount to a controller to increase the pressure difference between a pressure in the drainage lumen and a pressure in the atmosphere when the auxiliary lumen is open.

Further, the Examiner admitted that Johnson does not disclose the claim 1 feature of a *first pressure sensor for measuring the pressure in the auxiliary lumen*. See *Office Action Mailed 09-16-2009*, p. 3. In an effort to make up for this admitted deficiency, the Examiner turned to Williams for this disclosure.

Williams shows “introducing a balloon into the thoracic aorta of a patient and causing the balloon to inflate and deflate in anti-phase with the contraction of the patient’s heart.” See *Williams*, col. 5, lines 3-6. According to Williams, “[p]ressure sensor 55, continuously measures the pressure of shuttle gas in the [intra-aortic balloon] shuttle gas pneumatic circuit and communicates with the control logic

module 16." *Id.* at col. 5, lines 29-32. Additionally, Williams says that "[u]pon command from control logic module 16, pneumatic drive module 14 inflates or deflates the balloon membrane 26" *via a single inflate/deflate control line 20.* *Id.* at col. 5, lines 27-29; col. 6, lines 23-25. Williams has a closed system with a single control line for inflating a deflating a balloon in rhythm with a heart.

Williams does not provide the claim feature at hand, specifically because there is no teaching of *a first pressure sensor for measuring the pressure in the auxiliary lumen.* Notably, Williams does not teach an apparatus designed to remove fluid or tissue from the body. It does not remove anything. Williams' disclosed device is drawn to a very different purpose in a very different environment than that recited in Applicant's claims for removing bodily fluids from a body cavity by suction. There is no suggestion or reason to look to Williams to supply the deficiencies of Johnson, and the Examiner has failed to provide any such.

The Advisory Action attempts to avoid the fact that Williams is non-analogous art, stating that a reference must "be reasonably pertinent to the particular problem with which the applicant was concerned." The Action then alleges that "Williams solves the same problem as claimed by the Applicant, i.e. *maintaining* pressure in the lumen." This assertion is, respectfully, wrong. For example, the device of Applicant's claim 1 requires "a controller to *increase the pressure difference* between a pressure in the drainage lumen and a pressure in the atmosphere." In addition, Applicant's claim 1 recites "[a]n apparatus for *removing body fluids* from a body cavity by suction" and "for *removing clots or plugs* in the drainage lumen." But William's teaches a closed system with a single control line for inflating and deflating a balloon in rhythm

with a heart. Williams therefore does not even supply the missing pieces of Johnson, so as to add up to all of the claim limitations. Furthermore, there is no suggestion or reason to look to Williams to supply the deficiencies of Johnson.

Applicant submits that the Examiner failed to provide any articulation of the reason why Applicant's claimed invention would have been obvious, in view of these disparate references, and thus that the Action has not established *prima facie* obviousness of claim 1. Further, Applicant submits that claims 2-10 are allowable as well for at least the reason that they depend from allowable claim 1.

#### **B. Claims 11, 14-16**

Of these claims, claims 11 and 16 are independent. As noted above, the Office rejected claims 11 and 16 as being allegedly obvious over Johnson in view of Williams. Here again, Applicant submits that the rejection is improper and should be withdrawn, however, because the combination of Johnson and Williams does not teach all the elements of claims 11 and 16. At a minimum, for instance, the combination of Johnson and Williams does not teach the limitation of *increasing the pressure difference between a pressure in the drainage lumen and a pressure in the atmosphere only when the pressure measured in the auxiliary lumen corresponds at least to atmospheric pressure, wherein the pressure difference is increased by increasing the power of the source of suction.*

Per the discussion above, Johnson manually opens a valve to allow air to enter a venting passage when material plugs a suction passage. Noticeably absent is any teaching that *the pressure difference is increased by increasing the power of the source of suction*, as recited in claims 11 and 16. And Johnson's teaching that its

vacuum source is "controllable" is irrelevant, because Johnson simply does not teach *increasing the pressure difference between a pressure in the drainage lumen and a pressure in the atmosphere only when the pressure measured in the auxiliary lumen corresponds at least to atmospheric pressure*. The Office Action itself reinforces this point by admitting that Johnson does not disclose a pressure sensor.

*Office Action Mailed 09-16-2009*, p. 3.

Williams has a closed system with a single inflate/deflate control line, not an auxiliary lumen and a drainage lumen. Williams does not operate to remove body fluids from a cavity. So there is no *pressure difference between a pressure in the drainage lumen and a pressure in the atmosphere* taught in Williams that could be increased as claimed. There is no suction to remove body fluids, and therefore Williams does not teach *increasing the power of the source of suction*.

Here once more, Williams and Johnson do not "add up" to all of the claimed elements and limitations. *Ab initio*, they cannot equal a basis for a §103 rejection. In addition, Applicant refers to the arguments made above with respect to claims 1-10, to submit that the combination of Johnson and Williams is improper as to claims 11 and 14-16.

#### IV. Conclusion

In view of the foregoing, Applicant submits that all of the pending claims are in condition for allowance. Therefore, Applicant respectfully requests favorable reconsideration and allowance of all the claims. If the Examiner would like to discuss any aspect of this case, the Examiner is invited to telephone the undersigned at 312-913-0001.

Respectfully submitted,

Dated: January 19, 2010

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